

APPENDIX B

EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Activity	Objectives	Action	Objective Attained?	Recommendations
Objective 1: Meet TNRCC Requirements for Site Closure				
Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background				
Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background	Remove all hazardous and nonhazardous waste and waste residues and contaminated design and operating system components such as liners, leachate collection systems, and dikes from the unit or area of the unauthorized discharge. For remediation of media that have become contaminated by releases from a waste management unit or by other unauthorized discharge of hazardous or nonhazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section (30 TAC 335.554(b) and (c)).	A geophysical survey was conducted to determine if there was evidence of buried waste at an adjacent area south of the site in 1995. An anomaly was identified, but it was associated with a former bunker at the site. In 1997, a magnetometer survey was conducted at SWMU B-10 to identify metallic objects as part of a UXO reconnaissance.	Yes. There is no evidence of buried waste at SWMU B-10.	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
<p>Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background (cont.)</p>	<p>Determine compliance with RRS1 closure requirements by comparing to background as represented by results of analyses of samples taken from media that are unaffected by waste management or industrial activities. If the practical quantitation limit (PQL) is greater than background, then the PQL rather than background shall be used as the cleanup level provided that the person satisfactorily demonstrates to the executive director that lower levels of quantitation of a contaminant are not possible (30 TAC 335.554(d)).</p>	<p>Contaminant concentrations were compared to revised background levels (Parsons, February 2002) or PQLs.</p>	<p>Yes; however, lead and zinc, were detected at concentrations that exceed their respective background levels in several soil samples during the Aug-Nov, 2000 sampling events. Several locations were resampled in April 2003 and the reported metals concentrations were below their respective background levels.</p>	<p>The levels of metals detected were only slightly above background levels. RRS1 closure is recommended.</p>
	<p>Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern (30 TAC 335.554(e)).</p>	<p>Surface and subsurface soil samples were collected and analyzed for VOCs, SVOCs, explosives, and metals.</p>	<p>Yes, 18 trench sidewall and trench bottom samples were collected from the site after assorted debris had been removed from the site. Exceedances identified above were reported in the samples.</p>	<p>Site closure under RRS1 is recommended.</p>

Activity	Objectives	Action	Objective Attained?	Recommendations
Objective 2: Meet Requirements of 3008(h) Order for RFI				
RFI Workplan Requirements				
Field Sampling <i>(Detailed listing of methods and procedures are provided in project plans which are incorporated by reference).</i>	Conduct field sampling in accordance with procedures defined in the project work plan, SAP, QAPP, and HSP.	All sampling was conducted in accordance with the procedures described in the project plans.	Yes.	NA
Facility Investigation				
Characterization of Environmental Setting - Hydrogeology (B.3.A.1)	Evaluate hydrogeologic conditions at the site.	Shallow groundwater was not encountered during field sampling activities at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Characterization of Environmental Setting- Soils (B.3.A.2)	Characterize soils in accordance with USCS soil classification system (B.3.A.2(a)).	Soil types at the site are based on the SCS Bexar County Soil Survey (USDA, 1991) and are described in Section 1.2.1.	Yes.	NA
	Determine soil pH (B.3.A.2(e)).	The pH of each of the soil types evaluated as part of the background metals concentration study was determined through laboratory analysis. According to those analyses, the pH of the Tarrant Association-Gently Undulating soils is 8.08.	Yes.	NA
	Determine moisture content (B.3.A.2(g)).	The moisture content of each sample was analyzed. Moisture content values are provided in laboratory analytical packages.	Yes.	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
	Characterize marshes, creeks, wetland areas, or ditches at the site.	No marshes, creeks, wetland areas, or ditches are present at the site. Direction of runoff flow has been evaluated in Section 1.2.3.	Yes.	NA
Characterization of Environmental Setting – Surface Water and Sediment (B.3.A.3)	Identify the source area (B.3.B.1).	A description of the source area is provided in Section 1.1.2.2.	Elevated levels of lead and zinc were reported in several samples at concentrations that did exceed their respective background levels. Analytical results for samples that were collected during a second confirmation sampling event (locations with elevated levels of lead or zinc) were below their respective background levels.	Site closure under RRS1 is recommended.
Source Characterization (B.3.B)	Identify the location of the unit/disposal area (B.3.B.2(a)).	The measurement points were identified by the CSSA Environmental Coordinator. Points along the boundary of the site were surveyed with a GPS unit of estimated accuracy +/- 25 feet.	Yes. Although the accuracy of the boundary survey of the site is estimated to have an approximate error of 25 feet, this accuracy is sufficient for RRS1 closure.	Site closure under RRS1 is recommended.
	Identify the type of unit/disposal area (B.3.B.2(b)).	Information regarding the type of site was obtained from the Environmental Assessment (ES 1992) and from field activities.	No evidence of buried waste was identified from geophysical surveys.	Site closure under RRS1 is recommended.
	Identify design features (B.3.A.2(c)).	No evidence of past waste disposal activities were identified at the site.	Yes	NA
	Identification of past and present operating practices, period of operation, age of unit/disposal area, and method used to close the unit/disposal area (B.3.B.2(d), (e), (f), and (h)).	All known information regarding these items is provided in Section 1.1.2. This information is from the Environmental Assessment, records review, aerial photo review, and visual observations.	To the extent possible with data available.	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
	Determine general physical conditions of the site (B.3.B.2(g))	The general physical condition of the site was determined during the field investigation. This information is presented in Section 1.2.	Yes.	NA
	Identify waste characteristics, including type of waste placed in the unit, physical and chemical characteristics of the wastes, and migration and dispersal characteristics of the waste (B.3.B.3).	Records regarding historic waste disposal practices at CSSA are very limited. All known information, derived from the Environmental Assessment, records review, interviews, and visual observations at the site is provided in Section 1.1.2.2.	Yes. It has been confirmed that the site was used for waste disposal.	Site closure under RRS1 is recommended since clean-up criteria were satisfied.
	Characterize the vertical and horizontal extent of groundwater contamination.	Shallow groundwater was not encountered during drilling at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Contamination Characterization – Groundwater (B.3.C.1)	Determine vertical and horizontal extent of contamination (B.3.C.2(a)).	Surface and subsurface samples were collected in areas thought to contain contamination.	Yes. Exceedances were reported. Elevated levels of lead and zinc were reported in several samples at concentrations that did exceed their respective background levels. Analytical results for samples that were collected during a second confirmation sampling event (locations with elevated levels of lead or zinc) were below their respective background levels.	Site closure under RRS1 is recommended.
Contamination Characterization – Soil (B.3.C.2)	Describe soil properties (B.3.C.2(c)).	See “Characterization of Environmental Setting – Soils” above.	Yes.	NA

Activity	Objectives	Action	Objective Attained?	Recommendations
	Identify the direction of contaminant movement (B.3.C.2(d)).	No actions taken.	NA	NA
	Extrapolate future contaminant movement (B.3.C.2(e)).	No actions taken	NA	NA
	Implement a soil boring investigation to determine the extent of soil contamination. Soil gas monitoring will be performed during drilling of all borings. Laboratory analysis of borings for contaminants of potential concern will be performed on soils at depths where either visual contamination is evident, or soil gas concentrations indicate contamination. All boreholes shall be properly abandoned.	Three trenches were excavated at the site and buried debris along with affected soils were removed from the site.	Yes, the extent of contamination has been defined. Elevated levels of lead and zinc were reported in several samples at concentrations that did exceed their respective background levels. Analytical results for samples that were collected during a second confirmation sampling event (locations with elevated levels of lead or zinc) were below their respective background levels.	Site closure under RRS1 is recommended.
	Prepare a map of all areas included in the investigation (B.3.C.2(i)).	Figures included in this report show all areas included in the investigation.	Yes.	NA
	All reporting limits should be below regulatory criteria.	RLs were approved by TNRCC on October 5, 1999. PQLs based on these RLs are considered RRS1 standards for all analytes except metals.	Yes.	NA

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	Perform all analyses in accordance with the AFCEE QAPP.	All analyses were performed in accordance with the AFCEE QAPP and approved variances.	Yes.	NA
		All data flagged with “U,” “F,” “M,” and “J” are considered usable for site characterization purposes.	Yes	NA
		No data was flagged with an “R.”	Yes	NA
Contaminant Characterization – Sediment and Surface Water (B.3.C.3)	Conduct a surface water and sediment investigation to characterize contamination resulting from releases at the facility	SWMU B-10 is located approximately 2,000 feet from the Salado Creek floodplain. In the vicinity of CSSA, Salado Creek only contains water during and shortly after heavy precipitation. Therefore, surface water was not sampled as part of the SWMU B-10 investigation. Sampling of sediments in association with the SWMU B-10 investigation is not warranted since the extent of contamination has been defined per TRRP Tier 1 requirements.	NA	NA
Potential Receptors (B.3.D).	Collect the information necessary to describe the human populations and environmental systems that are susceptible to contaminant exposure from the Facility.	Information regarding receptors is provided in the Risk Assessment Technical Approach Document (Volume 1-6). In addition, the Well Research Report identifies private groundwater users within 0.25-mile and public water suppliers within 0.5-mile of CSSA. Additional potential receptors are discussed in Section 1.2.5	Yes.	NA